Massachusetts Department of Public Health
Drug Analysis Laboratory
Boston, MA.

Comprehensive Review: (Performed by a peer on 100% of cases)

Criteria for Comprehensive Review
The scope of the comprehensive review includes, but is not limited to all chain of custody documents, all notes, raw data, examination of packaged evidence and certificate of analysis.

1. Verify that the appropriate documentation is enclosed for comprehensive review.
   The following documents may include originals or copies of the drug receipt, control card, drug analysis form, MS tracking (control) sheet, MS sequence (batch) sheet, tune report, QC mix, internal polystyrene, raw data, and draft of certificate of analysis.
2. Verify that the Drug Receipt (completed by both the submitting agency and evidence officer) is filled out completely.
   The following information should be documented on the drug receipt: submitting city or department, name and rank of submitting officer, name of the defendant/s (if known), description of the sample, gross weight of the sample, assigned laboratory #, initial of the evidence officer and date received.
3. Verify that the Drug Analysis Form is filled out completely.
   The following information should be documented on the Drug Analysis Form: Lab #, agency, analyst's name, # of samples tested, evidence office gross weight, check the integrity of the sample (bag is sealed and initialed by officer), physical description of the sample, weight of the sample performed, all the appropriate tests are performed, preliminary findings are documented and dated.
4. Compare the Drug Receipt, control card and the actual evidence as recorded in the chemist's Drug Analysis Form.
   Check that any discrepancy between the drug receipt, control card, drug analysis form and actual evidence was noted.
5. Verify the proper sampling technique used and math calculations.
6. Examine and verify the preliminary testing raw data (if applicable.)
   a. Verify which instrument was used.
   b. Verify the use of blanks, standards and sample.
   c. Verify the blanks, standards and sample/s are within the laboratory acceptance criteria.
7. Verify that the MS Tracking (Control) Sheet is filled out completely and accurately (if applicable.)
   The following information should be documented on the MS Tracking (Control) Sheet: analyst's name, Lab#, agency, preliminary test results, comments (test/s performed), retention time of the standards, retention time of the sample, library quality match, confirmatory test results, date analyzed and sequence file name.
8. Verify that the MS Sequence (Batch) Sheet is filled out completely and accurately (if applicable.)
   The following information should be documented on the MS sequence (Batch) sheet: analyst, setup date, analysis date, GC/MS system used, sequence file name, data file name, methods used, blanks used, standards used and lab #/s used for this run.
9. Verify that the confirmatory instrument is working properly (if applicable.)
   a. For GC/MS & LC/MS/MS
      i. Verify that a tune report was performed and accepted.
      ii. Verify that a QC mix was performed and accepted.

b. For IR
    i. Verify that the monthly QC for the internal polystyrene was performed and accepted.

10. Examine and verify the confirmatory testing raw data (if applicable.)
    a. Verify which confirmatory instrument was used.
    b. Verify the use of blanks, standards and sample.
    c. Verify the blanks, standards and sample/s are within the laboratory acceptance criteria.
11. Verify the accuracy of the control card.
    Ensure the following information is correct: lab #, submitting agency, name and rank submitting officer, date submitted, description of the sample, defendant's name, # of items tested, # of tests performed, net weight, prelim findings, analyst's initial and date analyzed and confirmatory findings. The back of the control card documents the sequence file name.
12. Verify the accuracy of the draft certificate of analysis.
    Ensure the following information is correct: lab #, submitting agency, name and rank submitting officer, date submitted, description of the sample, defendant's name, # of items tested, net weight, drug identification, class and analyst/s.
13. Verify the accuracy of the evidence envelope.
    Ensure the following information is correct: lab #, submitting agency, defendant's name and date received/submitted.
14. Examine and verify packaged evidence.
    Ensure that the sample is sealed, labeled with the appropriate lab #, and analyst's initials.
15. Verify that the appropriate evidence envelope contains the correct draft of the certificate of analysis and packaged evidence.
16. After reviewing all the documentation and it meets the laboratory criteria, the comprehensive reviewer checklist must be signed and dated by the assigned reviewer.
17. The assigned technical reviewer will Log onto the Drug Lab computer application and complete the Technical review section. Once the technical review section is completed and meets the laboratory criteria, a final certificate of analysis will be generated and then the assigned reviewer will sign the document.
18. The appropriate case file will be returned to the custodial chemist and he/she/they will sign the final certificate of analysis.
19. Once the final certificate of analysis is signed by the chemist/s and reviewer, it will be notarize and recorded. A copy of the signed final certificate of analysis will be place into the appropriate case file. The completed case file will be stored according to the laboratory policy. The original certificate of analysis will be placed into the evidence envelope with the evidence.
20. Verify that the appropriate evidence envelope contains the correct certificate of analysis and packaged evidence (repetitive). Both the evidence envelope and the certificate will be returned to the evidence office and a return receipt will be generated and given to the custodial chemist.

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Comprehensive Reviewer Checklist

Lab #: _____ **Analyst:** _____

Identification of Substance: _____

Reviewer's Signature: _____

Date: _____

Review Items	Yes	No	Not Applicable	Comments
A. Are all the documentation for the comprehensive review present?				
1. Copy of Drug Receipt				
2. Copy of Control Card				
3. Drug Analysis Form				
4. Copy of MS Tracking (Control) Sheet				
5. Copy of MS Sequence (Batch) Sheet				
6. Copy of Tune Report				
7. Copy of QC Mix Data				
8. Copy of Internal Polystyrene				
9. Raw Data				
10. Draft of Certificate of Analysis				
B. Preliminary Test				
Do the notes contain a complete and accurate description of the evidence?				
Color Test Performed & Accepted				
Microcrystalline Test Performed & Accepted				
Verify Sampling Technique				
Verify Math Calculations				
Net Weight Documented				
Are the weights reported appropriately and are the proper units noted?				
Macroscopic Test Performed & Accepted				
Microscopic Test Performed & Accepted				
Micromedex Match Accepted				
Literature Search Match Accepted				
UV-Vis Test Performed & Accepted				
GC # _____ Test Performed & Accepted				
HPLC Test Performed & Accepted				

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Comprehensive Review Checklist

Lab #: _____ **Analyst:** _____

Review Items	Yes	No	Not Applicable	Comments
C. Confirmatory Test (if applicable)				
Instrumentation				
GC/MS #				
Tune Performed & Accepted				
QC Mix Performed & Accepted				
MS Sequence (Batch) Sheet Accepted				
Bracketing Standards Present & Accepted				
Relevant Blanks Present & Accepted				
MS Tracking (Control) Sheet Accepted				
Sample Retention Time Accepted				
Sample Library Search Accepted				
Sample Spectral Interpretation Match Accepted				
LC/MS/MS #				
Tune Performed & Accepted				
QC Mix Performed & Accepted				
MS Sequence (Batch) Sheet Accepted				
Bracketing Standards Present & Accepted				
Relevant Blanks Present & Accepted				
MS Tracking (Control) Sheet Accepted				
Sample Retention Time Accepted				
Sample Library Search Accepted				
Sample Spectral Interpretation Match Accepted				
IR #				
Internal Polystyrene Performed & Accepted				
Standard Present & Accepted				
Relevant Blanks Present & Accepted				
Sample Library Search Accepted				
Sample Spectral Interpretation Match Accepted				
D. Reporting				
Drug Receipt Completed & Correct				
Control Card Completed & Correct				
Drug Analysis Form Completed & Correct				
Certificate of Analysis Completed & Correct				
Evidence Envelope Completed & Correct				
Evidence Packaging Completed & Correct				